

(FILE 'HOME' ENTERED AT 14:24:44 ON 07 NOV 2003)

FILE 'REGISTRY' ENTERED AT 14:24:56 ON 07 NOV 2003

L1           STRUCTURE UPLOADED  
L2           6 S L1 SSS FULL

FILE 'CAPLUS, USPATFULL' ENTERED AT 14:25:33 ON 07 NOV 2003

L3           3 FILE CAPLUS  
L4           2 FILE USPATFULL

TOTAL FOR ALL FILES

L5           5 S L2  
L6           STRUCTURE UPLOADED

FILE 'REGISTRY' ENTERED AT 14:28:59 ON 07 NOV 2003

L7           6 FILE CAPLUS

FILE 'CAPLUS, USPATFULL' ENTERED AT 14:29:13 ON 07 NOV 2003

L8           3 FILE CAPLUS  
L9           2 FILE USPATFULL

TOTAL FOR ALL FILES

L10          5 S L7  
L11          0 FILE CAPLUS  
L12          0 FILE USPATFULL

TOTAL FOR ALL FILES

L13          0 S L10 NOT L5  
              SAVE ALL LSIRCARIGE/L

=>

FILE 'USPATFULL' ENTERED AT 14:29:13 ON 07 NOV 2003  
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l7

L8                3 FILE CAPLUS  
L9                2 FILE USPATFULL

TOTAL FOR ALL FILES

L10              5 L7

=> s l10 not l5

L11              0 FILE CAPLUS  
L12              0 FILE USPATFULL

TOTAL FOR ALL FILES

L13              0 L10 NOT L5

=> d his

(FILE 'HOME' ENTERED AT 14:24:44 ON 07 NOV 2003)

FILE 'REGISTRY' ENTERED AT 14:24:56 ON 07 NOV 2003

L1                STRUCTURE UPLOADED  
L2                6 S L1 SSS FULL

FILE 'CAPLUS, USPATFULL' ENTERED AT 14:25:33 ON 07 NOV 2003

L3                3 FILE CAPLUS  
L4                2 FILE USPATFULL

TOTAL FOR ALL FILES

L5                5 S L2  
L6                STRUCTURE UPLOADED

FILE 'REGISTRY' ENTERED AT 14:28:59 ON 07 NOV 2003

L7                6 FILE CAPLUS

FILE 'CAPLUS, USPATFULL' ENTERED AT 14:29:13 ON 07 NOV 2003

L8                3 FILE CAPLUS  
L9                2 FILE USPATFULL

TOTAL FOR ALL FILES

L10              5 S L7  
L11              0 FILE CAPLUS

L12              0 FILE USPATFULL

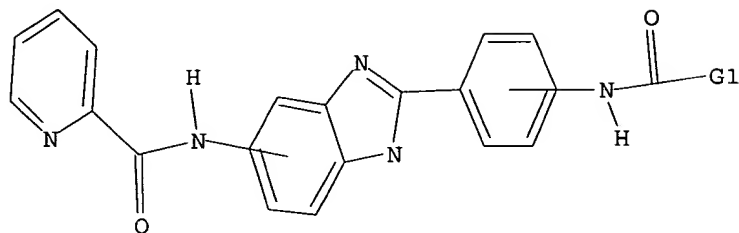
TOTAL FOR ALL FILES

L13              0 S L10 NOT L5

=>  
Uploading 09983054.str

L1 STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1 STR



G1 H, Cb, Cy, Hy

Structure attributes must be viewed using STN Express query preparation.

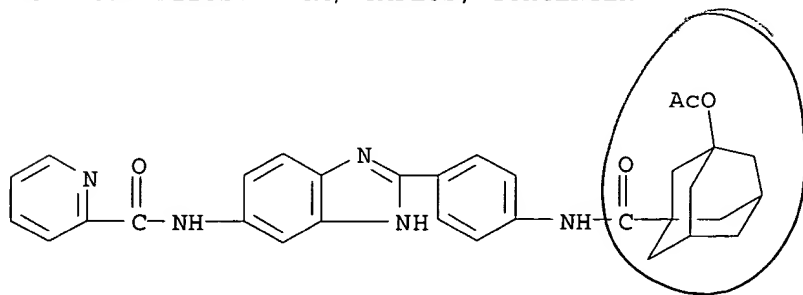
=> s l1 sss full  
FULL SEARCH INITIATED 14:25:19  
FULL SCREEN SEARCH COMPLETED - 269 TO ITERATE

100.0% PROCESSED 269 ITERATIONS 6 ANSWERS  
SEARCH TIME: 00.00.01

L2 6 SEA SSS FUL L1

=> d 1-6

L2 ANSWER 1 OF 6 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 609853-71-6 REGISTRY  
CN 2-Pyridinecarboxamide, N-[2-[4-[[[3-(acetyloxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]carbonyl]amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C32 H31 N5 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

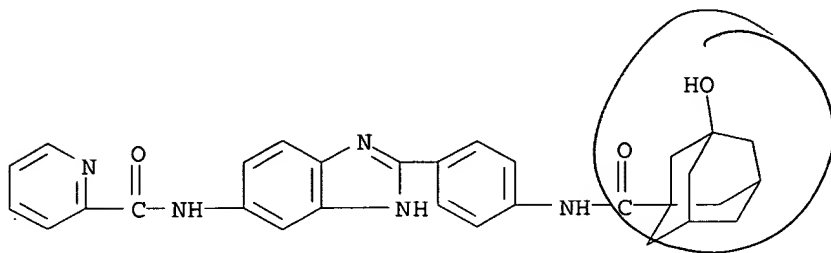


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 6 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 609853-70-5 REGISTRY  
CN 2-Pyridinecarboxamide, N-[2-[4-[[[3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-

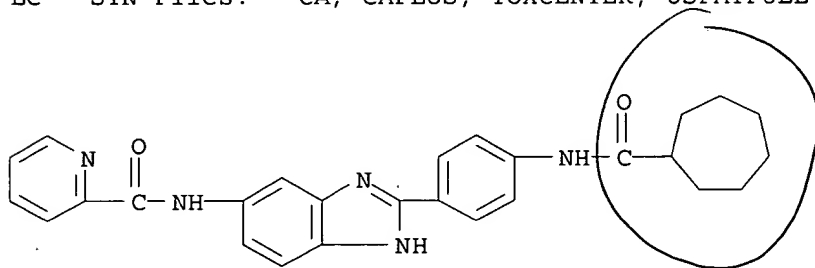
yl)carbonyl]amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C30 H29 N5 O3  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

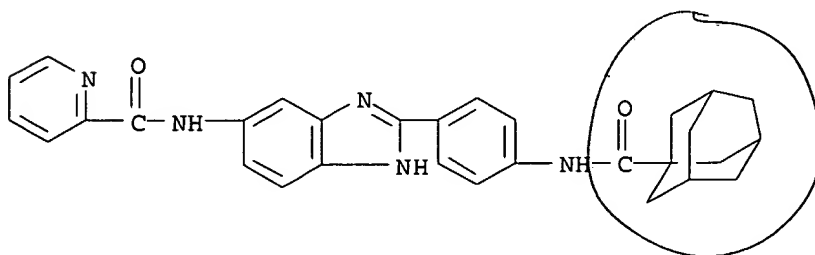
L2 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 479074-73-2 REGISTRY  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(cycloheptylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C27 H27 N5 O2  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

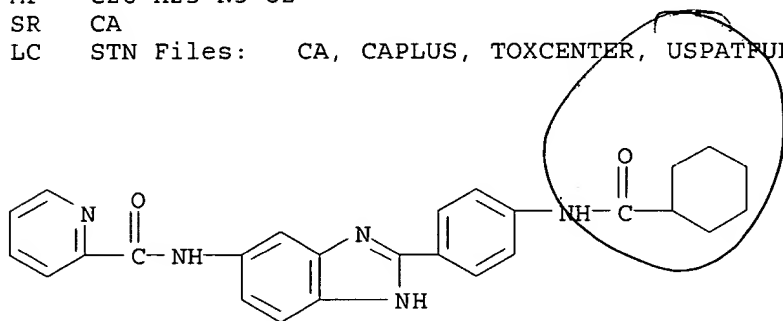
L2 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 479074-72-1 REGISTRY  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C30 H29 N5 O2  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

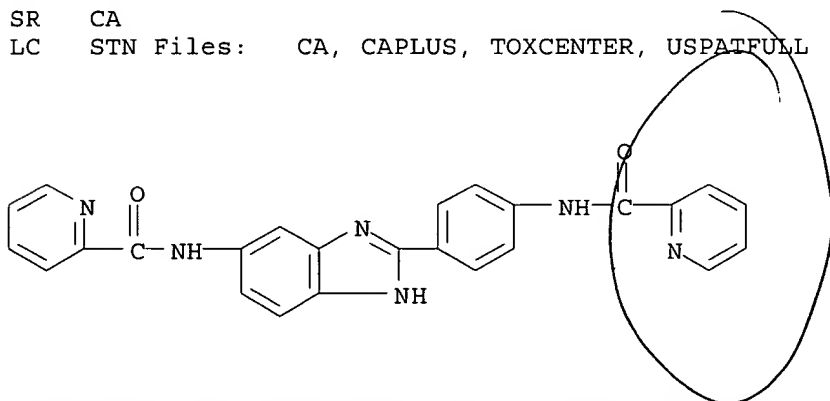
L2 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 479074-71-0 REGISTRY  
CN 2-Pyridinecarboxamide, N-[2-[4-[(cyclohexylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C26 H25 N5 O2  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 6 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 366011-96-3 REGISTRY  
CN 2-Pyridinecarboxamide, N-[4-[5-[(2-pyridinylcarbonyl)amino]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C25 H18 N6 O2  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil caplus, uspatful

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

158.23

158.44

FILE 'CAPLUS' ENTERED AT 14:25:33 ON 07 NOV 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 14:25:33 ON 07 NOV 2003  
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l2

L3 3 FILE CAPLUS  
L4 2 FILE USPATFULL

TOTAL FOR ALL FILES

L5 5 L2

=> d 1-5 ibib

L5 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:796412 CAPLUS

DOCUMENT NUMBER: 139:307758

TITLE: Use of benzimidazole analogs in the treatment of cell proliferation

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.

PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 280 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082186	A2	20031009	WO 2003-US6981	20030306
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-367686P P 20020325

L5 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:5494 CAPLUS

DOCUMENT NUMBER: 138:55965

TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 128 pp., Cont.-in-part of U.S. Ser. No. 422,397.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003004203	A1	20030102	US 2001-983054	20011016

US 6271390 B1 20010807 US 1999-316870 19990521  
 US 6303645 B1 20011016 US 1999-422397 19991021  
 PRIORITY APPLN. INFO.: US 1998-86494P P 19980522  
 US 1999-316870 A2 19990521  
 US 1999-422397 A2 19991021

OTHER SOURCE(S): MARPAT 138:55965

L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:757818 CAPLUS  
 DOCUMENT NUMBER: 135:303891  
 TITLE: Synthesis of diacylbenzimidazole derivatives as  
 modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell,  
 Michael G.; Major, Michael W.  
 PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
 SOURCE: U.S., 157 pp., Cont.-in-part of U.S. 6,271,390.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6303645	B1	20011016	US 1999-422397	19991021
US 6271390	B1	20010807	US 1999-316870	19990521
US 2002010343	A1	20020124	US 2001-882340	20010614
US 6451829	B2	20020917		
US 2003004203	A1	20030102	US 2001-983054	20011016
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			US 1999-316870	A2 19990521
			US 1999-422397	A2 19991021

OTHER SOURCE(S): MARPAT 135:303891  
 REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 5 USPATFULL on STN  
 ACCESSION NUMBER: 2003:4162 USPATFULL  
 TITLE: Benzimidazole derivatives as modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C., San Diego, CA, UNITED STATES  
 Richards, Mark L., San Diego, CA, UNITED STATES  
 Campbell, Michael G., Durham, NC, UNITED STATES  
 Major, Michael W., Mequon, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003004203	A1	20030102
APPLICATION INFO.:	US 2001-983054	A1	20011016 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-422397, filed on 21 Oct 1999, PATENTED Continuation-in-part of Ser. No. US 1999-316870, filed on 21 May 1999, PATENTED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86494P	19980522 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	791	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2001:179137 USPATFULL  
TITLE: Benzimidazole derivatives as modulators of IgE  
INVENTOR(S): Sircar, Jagadish C., San Diego, CA, United States  
Richards, Mark L., La Jolla, CA, United States  
Campbell, Michael G., Durham, NC, United States  
Major, Michael W., Glendale, WI, United States  
PATENT ASSIGNEE(S): Avanir Pharmaceuticals, San Diego, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6303645	B1	20011016
APPLICATION INFO.:	US 1999-422397		19991021 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-316870, filed on 21 May 1999, now patented, Pat. No. US 6271390		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86494P	19980521 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jarvis, William R. A.	
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear, LLP	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	705	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

=> d 1-5 ibib, hitstr

L5 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:796412 CAPLUS  
DOCUMENT NUMBER: 139:307758  
TITLE: Use of benzimidazole analogs in the treatment of cell proliferation  
INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.  
PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
SOURCE: PCT Int. Appl., 280 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082186	A2	20031009	WO 2003-US6981	20030306
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-367686P P 20020325

IT 366011-96-3 479074-71-0 479074-72-1  
479074-73-2 609853-70-5 609853-71-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

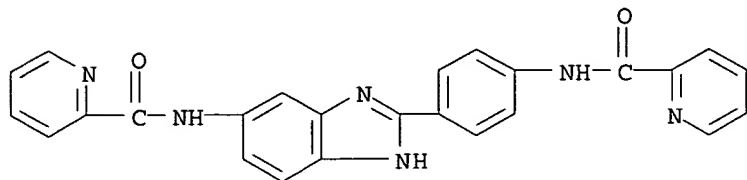


(Biological study); USES (Uses)

(use of benzimidazole analogs in the treatment of cell proliferation)

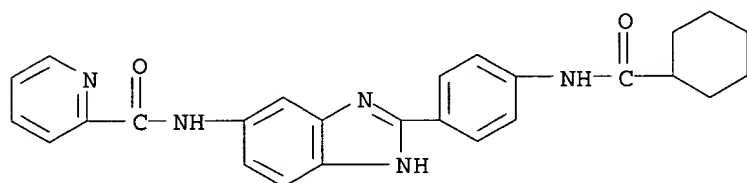
RN 366011-96-3 CAPLUS

CN 2-Pyridinecarboxamide, N-[4-[5-[(2-pyridinylcarbonyl)amino]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



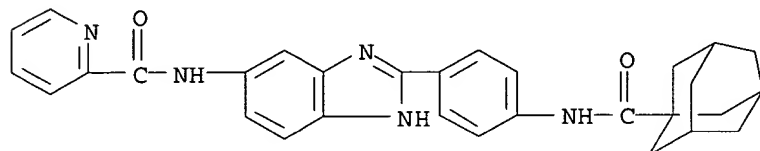
RN 479074-71-0 CAPLUS

CN 2-Pyridinecarboxamide, N-[2-[4-[(cyclohexylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



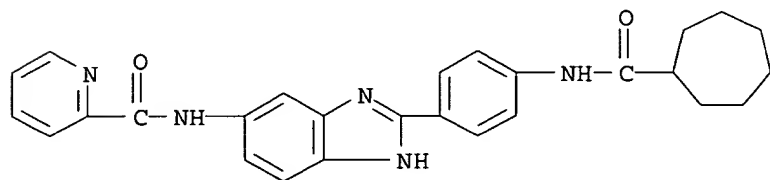
RN 479074-72-1 CAPLUS

CN 2-Pyridinecarboxamide, N-[2-[4-[(tricyclo[3.3.1.1.3,7]dec-1-ylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



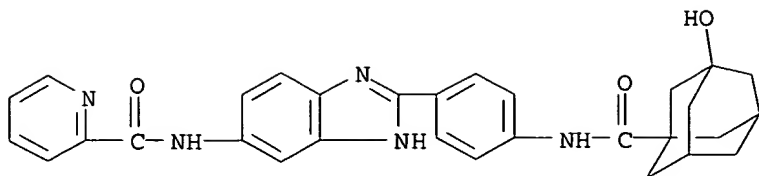
RN 479074-73-2 CAPLUS

CN 2-Pyridinecarboxamide, N-[2-[4-[(cycloheptylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)

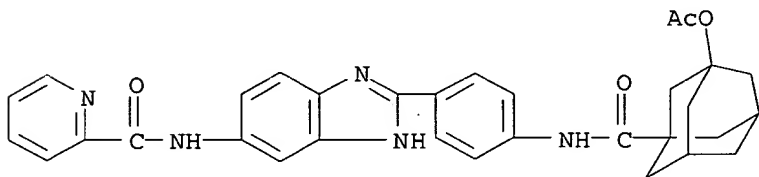


RN 609853-70-5 CAPLUS

CN 2-Pyridinecarboxamide, N-[2-[4-[[3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl]carbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



RN 609853-71-6 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[2-[4-[[[3-(acetyloxy)tricyclo[3.3.1.13,7]dec-1-yl]carbonyl]amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)

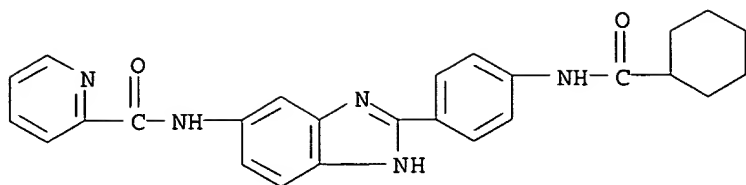


L5 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:5494 CAPLUS  
 DOCUMENT NUMBER: 138:55965  
 TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 128 pp., Cont.-in-part of U.S. Ser. No. 422,397.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

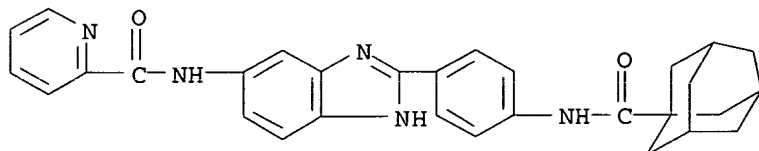
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003004203	A1	20030102	US 2001-983054	20011016
US 6271390	B1	20010807	US 1999-316870	19990521
US 6303645	B1	20011016	US 1999-422397	19991021
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			US 1999-316870	A2 19990521
			US 1999-422397	A2 19991021

OTHER SOURCE(S): MARPAT 138:55965  
 IT 479074-71-0P 479074-72-1P 479074-73-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

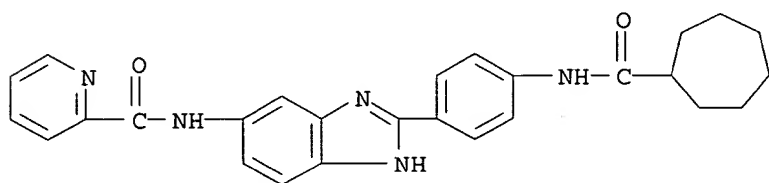
(synthesis of diacylbenzimidazole derivs. as modulators of IgE)  
 RN 479074-71-0 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(cyclohexylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



RN 479074-72-1 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



RN 479074-73-2 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(cycloheptylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:757818 CAPLUS  
 DOCUMENT NUMBER: 135:303891  
 TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.  
 PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
 SOURCE: U.S., 157 pp., Cont.-in-part of U.S. 6,271,390.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6303645	B1	20011016	US 1999-422397	19991021
US 6271390	B1	20010807	US 1999-316870	19990521
US 2002010343	A1	20020124	US 2001-882340	20010614
US 6451829	B2	20020917		
US 2003004203	A1	20030102	US 2001-983054	20011016
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			US 1999-316870	A2 19990521
			US 1999-422397	A2 19991021

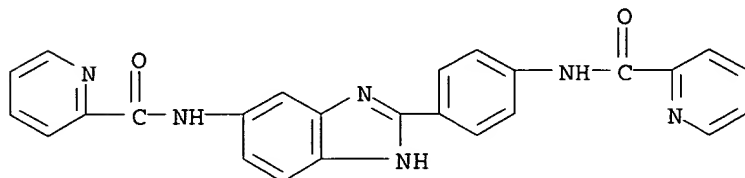
OTHER SOURCE(S): MARPAT 135:303891  
 IT 366011-96-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug; synthesis of diacylbenzimidazole derivs. as modulators of IgE)

RN 366011-96-3 CAPLUS

CN 2-Pyridinecarboxamide, N-[4-[5-[(2-pyridinylcarbonyl)amino]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:4162 USPATFULL

TITLE: Benzimidazole derivatives as modulators of IgE

INVENTOR(S): Sircar, Jagadish C., San Diego, CA, UNITED STATES

Richards, Mark L., San Diego, CA, UNITED STATES

Campbell, Michael G., Durham, NC, UNITED STATES

Major, Michael W., Mequon, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003004203	A1	20030102
APPLICATION INFO.:	US 2001-983054	A1	20011016 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-422397, filed on 21 Oct 1999, PATENTED Continuation-in-part of Ser. No. US 1999-316870, filed on 21 May 1999, PATENTED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86494P	19980522 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	791	

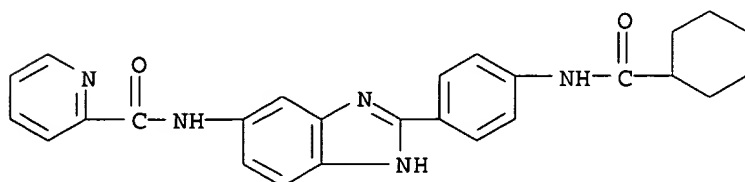
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 479074-71-0P 479074-72-1P 479074-73-2P

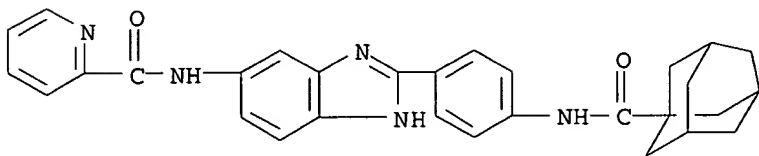
(synthesis of diacylbenzimidazole derivs. as modulators of IgE)

RN 479074-71-0 USPATFULL

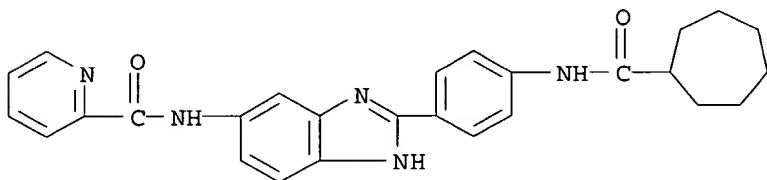
CN 2-Pyridinecarboxamide, N-[2-[4-[(cyclohexylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



RN 479074-72-1 USPATFULL  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



RN 479074-73-2 USPATFULL  
 CN 2-Pyridinecarboxamide, N-[2-[4-[(cycloheptylcarbonyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 5 USPATFULL on STN  
 ACCESSION NUMBER: 2001:179137 USPATFULL  
 TITLE: Benzimidazole derivatives as modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C., San Diego, CA, United States  
 Richards, Mark L., La Jolla, CA, United States  
 Campbell, Michael G., Durham, NC, United States  
 Major, Michael W., Glendale, WI, United States  
 PATENT ASSIGNEE(S): Avanir Pharmaceuticals, San Diego, CA, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6303645	B1	20011016
APPLICATION INFO.:	US 1999-422397		19991021 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-316870, filed on 21 May 1999, now patented, Pat. No. US 6271390		

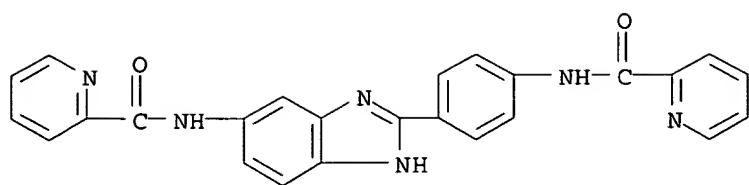
	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86494P	19980521 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jarvis, William R. A.	
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear, LLP	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	705	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 366011-96-3P

(drug; synthesis of diacylbenzimidazole derivs. as modulators of IgE)

RN 366011-96-3 USPATFULL  
 CN 2-Pyridinecarboxamide, N-[4-[5-[(2-pyridinylcarbonyl)amino]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:796412 CAPLUS

DOCUMENT NUMBER: 139:307758

TITLE: Use of benzimidazole analogs in the treatment of cell proliferation

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.

PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 280 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082186	A2	20031009	WO 2003-US6981	20030306
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-367686P P 20020325

L5 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:5494 CAPLUS

DOCUMENT NUMBER: 138:55965

TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 128 pp., Cont.-in-part of U.S. Ser. No. 422,397.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003004203	A1	20030102	US 2001-983054	20011016
US 6271390	B1	20010807	US 1999-316870	19990521
US 6303645	B1	20011016	US 1999-422397	19991021

PRIORITY APPLN. INFO.: US 1998-86494P P 19980522

US 1999-316870 A2 19990521

US 1999-422397 A2 19991021

OTHER SOURCE(S): MARPAT 138:55965

L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:757818 CAPLUS

DOCUMENT NUMBER: 135:303891

TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.

PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
 SOURCE: U.S., 157 pp., Cont.-in-part of U.S. 6,271,390.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6303645	B1	20011016	US 1999-422397	19991021
US 6271390	B1	20010807	US 1999-316870	19990521
US 2002010343	A1	20020124	US 2001-882340	20010614
US 6451829	B2	20020917		
US 2003004203	A1	20030102	US 2001-983054	20011016
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			US 1999-316870	A2 19990521
			US 1999-422397	A2 19991021

OTHER SOURCE(S): MARPAT 135:303891  
 REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 5 USPATFULL on STN  
 ACCESSION NUMBER: 2003:4162 USPATFULL  
 TITLE: Benzimidazole derivatives as modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C., San Diego, CA, UNITED STATES  
 Richards, Mark L., San Diego, CA, UNITED STATES  
 Campbell, Michael G., Durham, NC, UNITED STATES  
 Major, Michael W., Mequon, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003004203	A1	20030102
APPLICATION INFO.:	US 2001-983054	A1	20011016 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-422397, filed on 21 Oct 1999, PATENTED Continuation-in-part of Ser. No. US 1999-316870, filed on 21 May 1999, PATENTED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86494P	19980522 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	791	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L5 ANSWER 5 OF 5 USPATFULL on STN  
 ACCESSION NUMBER: 2001:179137 USPATFULL  
 TITLE: Benzimidazole derivatives as modulators of IgE  
 INVENTOR(S): Sircar, Jagadish C., San Diego, CA, United States  
 Richards, Mark L., La Jolla, CA, United States  
 Campbell, Michael G., Durham, NC, United States  
 Major, Michael W., Glendale, WI, United States  
 PATENT ASSIGNEE(S): Avanir Pharmaceuticals, San Diego, CA, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6303645	B1	20011016
APPLICATION INFO.:	US 1999-422397		19991021 (9)



RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-316870, filed  
on 21 May 1999, now patented, Pat. No. US 6271390

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86494P	19980521 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jarvis, William R. A.	
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear, LLP	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	705	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:796470 CAPLUS  
 DOCUMENT NUMBER: 139:307690  
 TITLE: Preparation of isoquinoline and isochroman derivatives  
 for treating virus infectious diseases  
 INVENTOR(S): Inoue, Takayuki; Maki, Katsuyuki; Hatakenaka, Kazuaki;  
 Yamagishi, Yukiko  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 53 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082265	A2	20031009	WO 2003-JP3929	20030328
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: AU 2002-1481 A 20020402  
 AU 2002-2002953603A 20021230

L12 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:796412 CAPLUS  
 DOCUMENT NUMBER: 139:307758  
 TITLE: Use of benzimidazole analogs in the treatment of cell  
 proliferation  
 INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.  
 PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
 SOURCE: PCT Int. Appl., 280 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082186	A2	20031009	WO 2003-US6981	20030306
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-367686P P 20020325

L12 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:507700 CAPLUS  
DOCUMENT NUMBER: 139:69945  
TITLE: Rigid-rod, ion-conducting polyimide copolymers  
INVENTOR(S): Litt, Morton H.; Savinell, Robert F.; Wainright, Jesse S.; Zhang, Yue  
PATENT ASSIGNEE(S): Case Western Reserve University, USA  
SOURCE: U.S., 28 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6586561	B1	20030701	US 2000-507086	20000218
PRIORITY APPLN. INFO.:			US 1999-120482P	P 19990218
REFERENCE COUNT:	28	THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L12 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:5494 CAPLUS  
DOCUMENT NUMBER: 138:55965  
TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE  
INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 128 pp., Cont.-in-part of U.S. Ser. No. 422,397.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003004203	A1	20030102	US 2001-983054	20011016
US 6271390	B1	20010807	US 1999-316870	19990521
US 6303645	B1	20011016	US 1999-422397	19991021
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			US 1999-316870	A2 19990521
			US 1999-422397	A2 19991021
OTHER SOURCE(S):	MARPAT 138:55965			

L12 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:827772 CAPLUS  
DOCUMENT NUMBER: 137:304798  
TITLE: Screening of Schwann cell activators  
INVENTOR(S): Konishi, Osamu; Inoue, Makoto; Kishino, Akiyoshi; Nakayama, Chikao; Kumagaya, Kazuo  
PATENT ASSIGNEE(S): Sumitomo Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002318231	A2	20021031	JP 2001-121861	20010420

PRIORITY APPLN. INFO.: JP 2001-121861 20010420  
OTHER SOURCE(S): MARPAT 137:304798

L12 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2002:416320 CAPLUS  
DOCUMENT NUMBER: 138:130666  
TITLE: Novel benzimidazole derivatives selectively inhibit  
endothelial cell growth and suppress angiogenesis in  
vitro and in vivo  
AUTHOR(S): Hori, Akira; Imaeda, Yasuhiro; Kubo, Keiji; Kusaka,  
Masami  
CORPORATE SOURCE: Pharmaceutical Discovery Research Division, Takeda  
Chemical Industries, Ltd., Jusohonmachi, Osaka,  
532-8686, Japan  
SOURCE: Cancer Letters (Shannon, Ireland) (2002), 183(1),  
53-60  
CODEN: CALEDQ; ISSN: 0304-3835  
PUBLISHER: Elsevier Science Ireland Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2002:300234 CAPLUS  
DOCUMENT NUMBER: 137:362545  
TITLE: Small molecule modulators of HIV Rev/Rev response  
element interaction identified by random screening  
AUTHOR(S): Chapman, Richard L.; Stanley, Thomas B.; Hazen,  
Richard; Garvey, Edward P.  
CORPORATE SOURCE: Department of Molecular Screening, GlaxoSmithKline,  
Research Triangle Park, NC, 27709-3398, USA  
SOURCE: Antiviral Research (2002), 54(3), 149-162  
CODEN: ARSRDR; ISSN: 0166-3542  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2002:271984 CAPLUS  
DOCUMENT NUMBER: 136:294828  
TITLE: Preparation of benzimidazole analogs as  
down-regulators of IgE  
INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell,  
Michael G.; Major, Michael W.  
PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
SOURCE: U.S., 43 pp., Cont. of U.S. Ser. No. 316,870.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6369091	B1	20020409	US 1999-422304	19991021
US 6271390	B1	20010807	US 1999-316870	19990521
US 2002010343	A1	20020124	US 2001-882340	20010614
US 6451829	B2	20020917		
US 2003100582	A1	20030529	US 2002-103258	20020320
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980521
			US 1999-316870	A2 19990521

US 1999-422304 A2 19991021

OTHER SOURCE(S): MARPAT 136:294828  
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2001:757818 CAPLUS  
DOCUMENT NUMBER: 135:303891  
TITLE: Synthesis of diacylbenzimidazole derivatives as  
modulators of IgE  
INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell,  
Michael G.; Major, Michael W.  
PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
SOURCE: U.S., 157 pp., Cont.-in-part of U.S. 6,271,390.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6303645	B1	20011016	US 1999-422397	19991021
US 6271390	B1	20010807	US 1999-316870	19990521
US 2002010343	A1	20020124	US 2001-882340	20010614
US 6451829	B2	20020917		
US 2003004203	A1	20030102	US 2001-983054	20011016
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			US 1999-316870	A2 19990521
			US 1999-422397	A2 19991021

OTHER SOURCE(S): MARPAT 135:303891  
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2000:356164 CAPLUS  
DOCUMENT NUMBER: 133:805  
TITLE: Benzimidazole derivatives as neovascularization  
inhibitors and pharmaceutical compositions containing  
them  
INVENTOR(S): Kubo, Keiji; Hori, Akira; Kusaka, Masami  
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000143635	A2	20000526	JP 1999-158035	19990604
PRIORITY APPLN. INFO.:			JP 1998-162489	A 19980610
			JP 1998-246689	A 19980901

OTHER SOURCE(S): MARPAT 133:805

L12 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2000:214835 CAPLUS  
DOCUMENT NUMBER: 132:265201  
TITLE: Preparation of imidazole derivatives as  
gonadotropin-releasing hormone antagonists  
INVENTOR(S): Suzuki, Nobuhiro; Takekawa, Shiro; Kubo, Keiji;  
Imaeda, Yasuhiro  
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 79 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000095767	A2	20000404	JP 1998-273013	19980928
PRIORITY APPLN. INFO.:			JP 1998-273013	19980928
OTHER SOURCE(S):		MARPAT 132:265201		

L12 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1999:763869 CAPLUS  
DOCUMENT NUMBER: 132:12307  
TITLE: Preparation of 2-[(aroylamino)phenyl]benzimidazoles as IgE inhibitors  
INVENTOR(S): Sircar, Jagadish; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.  
PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
SOURCE: PCT Int. Appl., 63 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961020	A1	19991202	WO 1999-US11490	19990521
W:		AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG		
CA 2332985	AA	19991202	CA 1999-2332985	19990521
AU 9943120	A1	19991213	AU 1999-43120	19990521
AU 754943	B2	20021128		
EP 1079830	A1	20010307	EP 1999-953286	19990521
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO		
BR 9910642	A	20011009	BR 1999-10642	19990521
JP 2002516277	T2	20020604	JP 2000-550480	19990521
NZ 508413	A	20030829	NZ 1999-508413	19990521
ZA 2000007754	A	20010816	ZA 2000-7754	20000221
NO 2000005889	A	20010122	NO 2000-5889	20001121
ZA 2000007753	A	20010718	ZA 2000-7753	20001221
ZA 2000007752	A	20011205	ZA 2000-7752	20001221
PRIORITY APPLN. INFO.:			US 1998-86494P P	19980522
			WO 1999-US11490 W	19990521
OTHER SOURCE(S):		MARPAT 132:12307		
REFERENCE COUNT:		6	THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT	

L12 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1999:763868 CAPLUS  
DOCUMENT NUMBER: 132:12306  
TITLE: Preparation of 2-[(aroylamino)phenyl]-5-(aroylamino)benzimidazoles and analogs as IgE inhibitors

INVENTOR(S): Sircar, Jagadish; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.  
 PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA  
 SOURCE: PCT Int. Appl., 71 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961019	A1	19991202	WO 1999-US11322	19990521
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG				
CA 2332989	AA	19991202	CA 1999-2332989	19990521
AU 9940942	A1	19991213	AU 1999-40942	19990521
AU 754562	B2	20021121		
EP 1077700	A1	20010228	EP 1999-924442	19990521
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9910641	A	20011002	BR 1999-10641	19990521
JP 2002516276	T2	20020604	JP 2000-550479	19990521
ZA 2000007754	A	20010816	ZA 2000-7754	20000221
NO 2000005888	A	20010122	NO 2000-5888	20001121
ZA 2000007753	A	20010718	ZA 2000-7753	20001221
ZA 2000007752	A	20011205	ZA 2000-7752	20001221
PRIORITY APPLN. INFO.:			US 1998-86494P	P 19980522
			WO 1999-US11322	W 19990521
OTHER SOURCE(S): MARPAT 132:12306				
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L12 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1995:406145 CAPLUS  
 DOCUMENT NUMBER: 123:84178  
 TITLE: New rigid-chain copoly(naphthoyleneimidobenzimidazoles) and their films  
 AUTHOR(S): Ponomarev, I. I.; Nikol'skii, O. G.; Volkova, Yu. A.; Zakharov, A. V.  
 CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia  
 SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1994), 36(9), 1429-37  
 CODEN: VSSBEE  
 PUBLISHER: MAIK Nauka  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

L12 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1987:197007 CAPLUS  
 DOCUMENT NUMBER: 106:197007  
 TITLE: Effect of different unit structure related to asymmetry of one of the monomers of poly(amidobenzimidazole) properties  
 AUTHOR(S): Gel'mont, M. M.; Braverman, L. P.; Smirnova, V. N.; Kulichikhin, V. G.; Efros, L. S.  
 CORPORATE SOURCE: Leningr. Nauchno-Issled. Inst. Khim. Volokon Komp.

SOURCE: Mater., Leningrad, USSR  
 Vysokomolekulyarnye Soedineniya, Seriya A (1987),  
 29(3), 537-43  
 CODEN: VYSAAF; ISSN: 0507-5475  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

L12 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1987:129047 CAPLUS  
 DOCUMENT NUMBER: 106:129047  
 TITLE: Mass spectrometric study of dissociative ionization of  
 low-molecular models of aromatic polyamides  
 AUTHOR(S): Pozdnyakov, O. F.; Yudin, V. S.  
 CORPORATE SOURCE: Fiz.-Tekh. Inst. im. Ioffe, Leningrad, USSR  
 SOURCE: Khimiya Vysokikh Energii (1987), 21(1), 38-44  
 CODEN: KHVKA0; ISSN: 0023-1193  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

L12 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1987:33811 CAPLUS  
 DOCUMENT NUMBER: 106:33811  
 TITLE: Hydrodynamic and optical properties of polyamides  
 containing benzimidazole rings symmetrically  
 incorporated into the chain  
 AUTHOR(S): Lavrenko, P. N.; Shtennikova, I. N.; Garmonova, T. I.;  
 Mikryukova, O. I.; Gel'mont, M. M.; Efros, L. S.  
 CORPORATE SOURCE: Inst. Vysokomol. Soedin., Leningrad, USSR  
 SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1986),  
 28(10), 2102-7  
 CODEN: VYSAAF; ISSN: 0507-5475  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

L12 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1986:407805 CAPLUS  
 DOCUMENT NUMBER: 105:7805  
 TITLE: Study of thermodynamics of the precipitation of a  
 polyheteroarylene using low-molecular-weight models  
 AUTHOR(S): Karchmarchik, O. S.; Slavina, Z. N.; Gal, A. E.;  
 Direnko, L. Yu.  
 CORPORATE SOURCE: USSR  
 SOURCE: Khimicheskie Volokna (1986), (2), 18-21  
 CODEN: KVLKA4; ISSN: 0023-1118  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

L12 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1985:560977 CAPLUS  
 DOCUMENT NUMBER: 103:160977  
 TITLE: Mass-spectrometry study of thermal degradation of  
 fiber-forming aromatic polyamides  
 AUTHOR(S): Gal, A. E.; Perepelkin, K. E.; Pozdnyakov, O. F.;  
 Yudin, V. S.; Gel'mont, M. M.  
 CORPORATE SOURCE: USSR  
 SOURCE: Khimicheskie Volokna (1985), (4), 14-17  
 CODEN: KVLKA4; ISSN: 0023-1118  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

L12 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1983:540428 CAPLUS  
 DOCUMENT NUMBER: 99:140428  
 TITLE: Synthesis of symmetric terephthaloyl derivatives of



2-(p-aminophenyl)-5-aminobenzimidazoles as monomers  
for polyamides

AUTHOR(S): Gel'mont, M. M.; Akulin, Yu. I.; Strelets, B. Kh.;  
Efros, L. S.

CORPORATE SOURCE: Lening. Eksp. Zavod, Vses. Nauchno-Issled. Proektn.  
Inst. Iskusstven. Volokna, Leningrad, 195030, USSR

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1983), (7),  
975-81

CODEN: KGSSAQ; ISSN: 0453-8234

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 99:140428

=>

L12 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

IT 165677-25-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

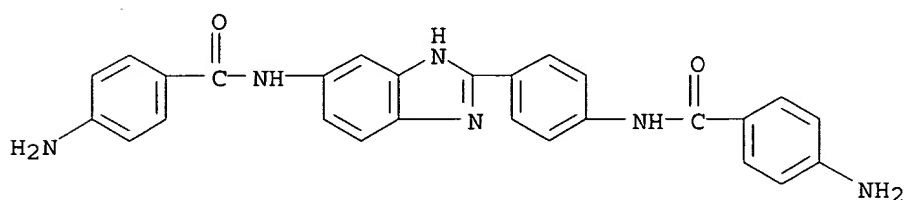
RN 165677-25-8 CAPLUS

CN Benzamide, 4-amino-N-[4-[5-[(4-aminobenzoyl)amino]-1H-benzimidazol-2-yl]phenyl]-, polymer with 2-(4-aminophenyl)-1H-benzimidazol-5-amine and [2]benzopyrano[6,5,4-def][2]benzopyran-1,3,6,8-tetrone (9CI) (CA INDEX NAME)

CM 1

CRN 165677-24-7

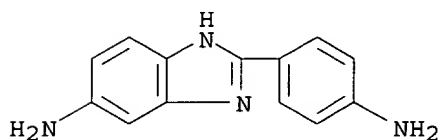
CMF C27 H22 N6 O2



CM 2

CRN 7621-86-5

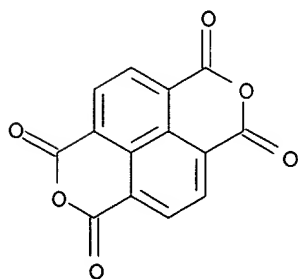
CMF C13 H12 N4



CM 3

CRN 81-30-1

CMF C14 H4 O6



AN 1995:406145 CAPLUS

DN 123:84178

TI New rigid-chain copoly(naphthoyleneimidobenzimidazoles) and their films

AU Ponomarev, I. I.; Nikol'skii, O. G.; Volkova, Yu. A.; Zakharov, A. V.

CS Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia

SO Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1994), 36(9), 1429-37  
CODEN: VSSBEE

PB MAIK Nauka

DT Journal

LA Russian

CC 35-5 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 37

AB New copoly(naphthoyleneimidobenzimidazoles) were synthesized on the basis of 1,4,5,8-naphthalenetetracarboxylic dianhydride, 5(6)-amino-2-(p-aminophenyl)benzimidazole, and arom. rigid-rod diamines. The strength parameters of films based on these polymers increase sharply both in the initial and in an oriented state if the material contains 20-40 mol% rodlike fragments. The ultimate tensile strength of an oriented film material based on a polymer contg. 30 mol% di-Ph units reaches 1.5 GPa with the elasticity modulus of 38 GPa.

ST rigid rod polyamide polyimide polybenzimidazole; tensile polyamide polyimide polybenzimidazole film

IT Chains, chemical  
(Kuhn's segment length; prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

IT Polyimides, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyamide-polybenzimidazole-, prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

IT Polybenzimidazoles  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyamide-polyimide-, prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

IT Polyimides, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polybenzimidazole-, prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

IT Polyamides, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polybenzimidazole-polyimide-, prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

IT Polybenzimidazoles  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polyimide-, prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

IT **165677-25-8P** 165677-26-9P 165677-27-0P 165677-28-1P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and tensile characteristics of copoly(naphthoyleneimidobenzimidazole) films)

L12 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

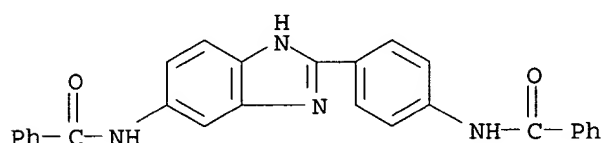
IT **87366-51-6**  
RL: PRP (Properties)  
(microstructure of, properties in relation to)

RN 87366-51-6 CAPLUS

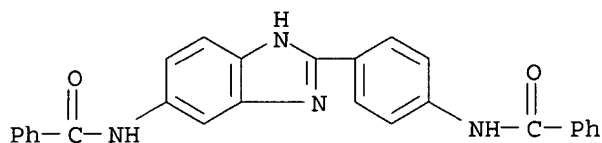
CN Poly(1H-benzimidazole-2,5-diyliminocarbonyl-1,4-phenylenecarbonylimino-1H-benzimidazole-5,2-diyl-1,4-phenyleneiminocarbonyl-1,4-phenylenecarbonylimino-1,4-phenylene) (9CI) (CA INDEX NAME)

AN 1987:197007 CAPLUS  
DN 106:197007  
TI Effect of different unit structure related to asymmetry of one of the  
monomers of poly(amidobenzimidazole) properties  
AU Gel'mont, M. M.; Braverman, L. P.; Smirnova, V. N.; Kulichikhin, V. G.;  
Efros, L. S.  
CS Leningr. Khim. Volokon Komp. Mater., Leningrad, USSR  
SO Vysokomolekulyarnye Soedineniya, Seriya A (1987), 29(3), 537-43  
CODEN: VYSAAF; ISSN: 0507-5475  
DT Journal  
LA Russian  
CC 36-2 (Physical Properties of Synthetic High Polymers)  
AB A comparative evaluation of the Kuhn segment length, activation energy of  
viscous flow of 4% solns. in AcNMe<sub>2</sub>, H bonding, and phase transitions from  
isotropic to liq.-cryst. state in H<sub>2</sub>SO<sub>4</sub> solns. revealed no significant  
differences between 2-(p-aminophenyl)-6-aminobenzimidazole-terephthaloyl  
chloride copolymers [89871-72-7] of asym. microstructure (i.e., contg.  
heat-to-tail mixts.) and N,N'-bis[p-(6-aminobenzimidazol-2-  
yl)phenyl]terephthalamide-terephthaloyl chloride copolymer [87366-16-3]  
of sym. microstructure.  
ST polybenzimidazole polyamide microstructure property  
IT Polyamides, properties  
RL: PRP (Properties)  
(benzimidazole-contg., microstructure of, properties in relation to)  
IT Hydrogen bond  
(formation of, in benzimidazole group-contg. polyamides, microstructure  
effect on)  
IT Chains, chemical  
(microstructure of, of benzimidazole group-contg. polyamides,  
properties in relation to)  
IT Liquid crystals  
(of benzimidazole group-contg. polyamides, formation of, microstructure  
effect on)  
IT Flow  
(viscous, of benzimidazole group-contg. polyamides, activation energy

of, microstructure effect on)  
 IT 1333-74-0P  
 RL: PREP (Preparation)  
 (hydrogen bond, formation of, in benzimidazole group-contg. polyamides, microstructure effect on)  
 IT 87366-16-3 87366-51-6 89871-72-7  
 RL: PRP (Properties)  
 (microstructure of, properties in relation to)  
 L12 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 IT 98806-53-2, Bis-5,4'-dibenzanilide-2-phenylbenzimidazole  
 RL: USES (Uses)  
 (dissocd. ionization of, under electron-impact, radiation stability of arom. polyamides in relation to)  
 RN 98806-53-2 CAPLUS  
 CN Benzamide, N-[4-[5-(benzoylamino)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



IT 107254-03-5P  
 RL: PREP (Preparation)  
 (formation and fragmentation of, in electron-impact dissocd. ionization, radiation stability of arom. polyamides in relation to)  
 RN 107254-03-5 CAPLUS  
 CN Benzamide, N-[4-[5-(benzoylamino)-1H-benzimidazol-2-yl]phenyl]-, radical ion(1+) (9CI) (CA INDEX NAME)

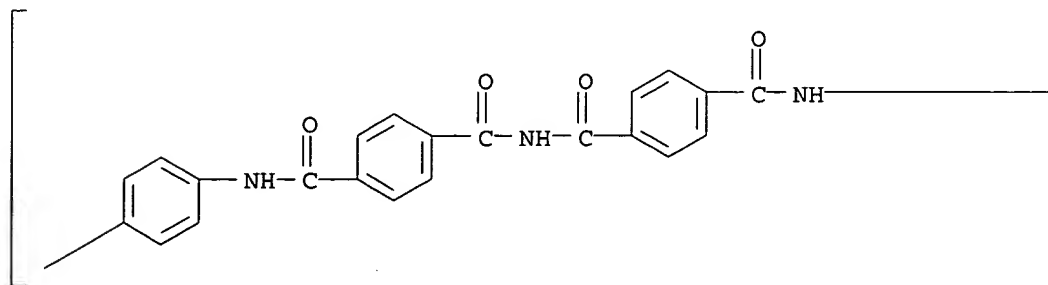


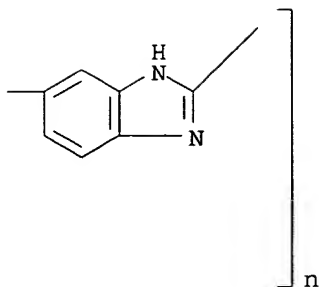
AN 1987:129047 CAPLUS  
 DN 106:129047  
 TI Mass spectrometric study of dissociative ionization of low-molecular models of aromatic polyamides  
 AU Pozdnyakov, O. F.; Yudin, V. S.  
 CS Fiz.-Tekh. Inst. im. Ioffe, Leningrad, USSR  
 SO Khimiya Vysokikh Energii (1987), 21(1), 38-44  
 CODEN: KHVKA0; ISSN: 0023-1193  
 DT Journal  
 LA Russian  
 CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 AB Electron-impact dissociative ionization was studied of the low mol. wt. arom. compds. which could serve as the structural models of the chain polyamides. All the studied compds. were characterized by rather high values of radiation stability w (w = ratio of the no. of nondissociated mol. ions to the total no. of ions). The compds. which did not contain amide groups had higher w; the highest stability was obsd. for benzimidazole derivs. Introduction of an amide group led to destabilization of the mol. and w decrease. The compds. contg. amide groups bonded with a benzene ring had lower stability compare to the analogous compds. which did not have this bond like benzamide (w 25%) vs.

formylanilide (w 49%). The presence of the electron acceptor groups in the mol. decreased, while electron donor groups increased the radiation stability. Also, an effect of the mol. structure on the arom. polyamide stability is discussed; mechanisms are proposed of the radiation-induced degrdn. of the different polyamides, based on the anal. of the fragmentation pattern of the ions of the studied model compds.

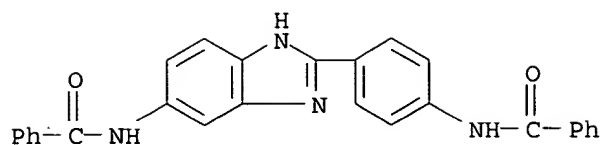
- ST polyamide radiolysis monomer dissociative ionization; amine amides  
electron impact decompn
- IT Ionization in gases  
(dissocd., electron-impact, of arom. low-mol. model compds. of arom. polyamides)
- IT Polyamides, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(radiation stability of, dissocd. ionization of low mol. models in relation to)
- IT Radiolysis  
(electron, of low mol. wt. models of arom. polyamides)
- IT 51-17-2, Benzimidazole 55-21-0 62-53-3, Aniline, properties 93-98-1, Benzanilide 100-52-7, Benzaldehyde, properties 103-70-8 716-79-0, 2-Phenylbenzimidazole 2963-77-1 7154-31-6 7621-86-5 13755-08-3 17223-18-6 17625-83-1, p-Aminobenzanilide 19250-69-2, 5-Benzanilide-2-phenylbenzimidazole 71002-88-5 98806-50-9 98806-53-2, Bis-5,4'-dibenzanilide-2-phenylbenzimidazole 98806-54-3  
RL: USES (Uses)  
(dissocd. ionization of, under electron-impact, radiation stability of arom. polyamides in relation to)
- IT 17333-73-2P 19270-10-1P 107254-04-6P 107254-05-7P  
RL: PREP (Preparation)  
(formation and fragmentation of, in electron-impact dissocd. ionization of arom. model compds., radiation stability of arom. polyamides in relation to)
- IT 107253-97-4P 107253-98-5P 107253-99-6P 107254-00-2P 107254-01-3P 107254-02-4P 107254-03-5P  
RL: PREP (Preparation)  
(formation and fragmentation of, in electron-impact dissocd. ionization, radiation stability of arom. polyamides in relation to)
- L12 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
- IT 106070-64-8  
RL: PRP (Properties)  
(hydrodynamic and optical properties of solns. of, chain configuration effect on)
- RN 106070-64-8 CAPLUS
- CN Poly(1H-benzimidazole-2,5-diyliminocarbonyl-1,4-phenylenecarbonyliminocarbonyl-1,4-phenylenecarbonylimino-1,4-phenylene) (9CI) (CA INDEX NAME)

PAGE 1-A

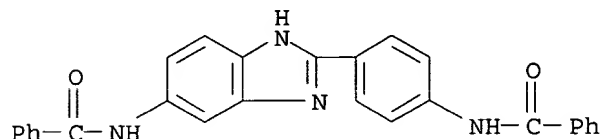




AN 1987:33811 CAPLUS  
 DN 106:33811  
 TI Hydrodynamic and optical properties of polyamides containing benzimidazole rings symmetrically incorporated into the chain  
 AU Lavrenko, P. N.; Shtennikova, I. N.; Garmonova, T. I.; Mikryukova, O. I.; Gel'mont, M. M.; Efros, L. S.  
 CS Inst. Vysokomol. Soedin., Leningrad, USSR  
 SO Vysokomolekulyarnye Soedineniya, Seriya A (1986), 28(10), 2102-7  
 CODEN: VYSAAF; ISSN: 0507-5475  
 DT Journal  
 LA Russian  
 CC 36-7 (Physical Properties of Synthetic High Polymers)  
 AB Translational diffusion, intrinsic viscosity, and birefringence of polyamide-polybenzimidazoles with different chain sequence distributions were studied in flowing H<sub>2</sub>SO<sub>4</sub> solns. An increase in the fraction of the benzimidazole units of head-to-head configuration from 2/3 to 1 had no significant effect on equil. stiffness and on optical anisotropy of the chains in soln.  
 ST polyamide polybenzimidazole configuration soln property; diffusion polyamide polybenzimidazole configuration; viscosity polyamide polybenzimidazole configuration; flow birefringence polyamide polybenzimidazole configuration  
 IT Chains, chemical  
     (configuration of, of polyamide-polybenzimidazoles, hydrodynamic and optical properties of solns. in relation to)  
 IT Birefringence, flow  
     Diffusion  
     (of polyamide-polybenzimidazoles, in solns., chain configuration effect on)  
 IT Polyamides, properties  
     RL: PRP (Properties)  
     (benzimidazole group-contg., hydrodynamic and optical properties of solns. of, chain configuration effect on)  
 IT 87345-65-1  
     RL: PRP (Properties)  
     (hydrodynamic and optical properties of solns. of, as model for polyamide-polybenzimidazoles)  
 IT 106070-64-8  
     RL: PRP (Properties)  
     (hydrodynamic and optical properties of solns. of, chain configuration effect on)  
 L12 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 IT 98806-53-2 102856-31-5  
     RL: USES (Uses)  
     (ppn. of, mechanism and thermodyn. of, poly(benzimidazoleterephthalamide) fiber formation in relation to)  
 RN 98806-53-2 CAPLUS  
 CN Benzamide, N-[4-[5-(benzoylamino)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 102856-31-5 CAPLUS  
 CN Benzamide, N-[4-[5-(benzoylamino)-1H-benzimidazol-2-yl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

AN 1986:407805 CAPLUS  
 DN 105:7805  
 TI Study of thermodynamics of the precipitation of a polyheteroarylene using low-molecular-weight models  
 AU Karchmarchik, O. S.; Slavina, Z. N.; Gal, A. E.; Direnko, L. Yu.  
 CS USSR  
 SO Khimicheskie Volokna (1986), (2), 18-21  
 CODEN: KVLKA4; ISSN: 0023-1118  
 DT Journal  
 LA Russian  
 CC 40-2 (Textiles)  
 AB Pptn. thermodyn. of low-mol.-wt. models of a poly(benzimidazoleterephthalamide) and the structure of the ppts. were studied as functions of temp., pH, solvent-precipitant ratio, and electrolyte (LiCl) concn. to elucidate the mechanism of fiber formation. The pptn. proceeds via decompn. of model-LiCl (and/or solvent) assoc., induced by the precipitant. This results in the formation of precipitant-LiCl and -solvent assoc. and complete desolvation of the models. The results, esp. spectral data on ppts., indicate that the benzamide groups of the polymer are responsible for the pptn. during fiber formation.  
 ST pptn polybenzimidazoleterephthalamide fiber model; thermodyn pptn polybenzimidazoleterephthalamide model; polyamide fiber pptn model  
 IT Heat of solution  
 (of poly(benzimidazoleterephthalamide) models, fiber formation in relation to)  
 IT Precipitation  
 (of poly(benzimidazoleterephthalamide) models, mechanism and thermodyn. of, fiber formation in relation to)  
 IT Entropy  
 Free energy  
 (of soln., of poly(benzimidazoleterephthalamide) models, fiber formation in relation to)  
 IT Polyamide fibers, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (arom., benzimidazole group-contg., prepn. of, pptn. in, model study of)  
 IT 51-17-2DP, derivs., polymers  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (fiber, prepn. of, pptn. in, model study of)



IT 7447-41-8, uses and miscellaneous  
 RL: USES (Uses)  
 (pptn. of poly(benzimidazoleterephthalamide) in presence of, fiber formation in relation to, model study of)

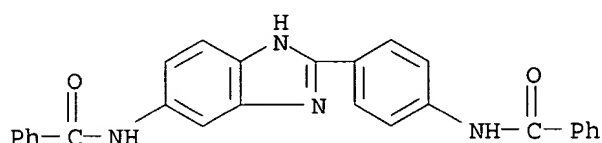
IT 93-98-1 716-79-0 34535-90-5 98806-53-2 102856-31-5  
 RL: USES (Uses)  
 (pptn. of, mechanism and thermodyn. of, poly(benzimidazoleterephthalamide) fiber formation in relation to)

L12 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

IT 98806-53-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (polymer degrdn. of, as model for arom. polyamides, mass-spectroscopic study of)

RN 98806-53-2 CAPLUS

CN Benzamide, N-[4-[5-(benzoylamino)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



AN 1985:560977 CAPLUS

DN 103:160977

TI Mass-spectrometry study of thermal degradation of fiber-forming aromatic polyamides

AU Gal, A. E.; Perepelkin, K. E.; Pozdnyakov, O. F.; Yudin, V. S.; Gel'mont, M. M.

CS USSR

SO Khimicheskie Volokna (1985), (4), 14-17  
 CODEN: KVLKA4; ISSN: 0023-1118

DT Journal

LA Russian

CC 35-8 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 40

AB The mechanism of thermal degrdn. of arom. polyamides, suitable for fiber manuf., was elucidated by analyzing the mass spectra of the model compds. and degrdn. products. The degrdn. of model compds. began with the breaking of HN-CO bonds, followed by that of arom. C-CO bonds, while with increasing length of model mols. the breaking of both bond types became a parallel process. The degrdn. of polymers proceeded via a no. of heterolytic and homolytic reactions, resulting in the formation of new structures which were stable at >700.degree.. The homolytic reactions involved in degrdn. were discussed in detail, and activation energies of degrdn. were detd. for 4 polyamides.

ST thermal degrdn arom polyamide mechanism; mass spectrometry arom polyamide degrdn; kinetics thermal degrdn arom polyamide

IT Polyamide fibers, reactions  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (aramid, thermal degrdn. of, model study of)

IT Polyamides, reactions  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (arom., thermal degrdn. of, kinetics and mechanism of)

IT Kinetics of polymer degradation  
 (thermal, of arom. polyamides)

IT Polymer degradation  
 (thermal, of arom. polyamides, mechanism of)

IT 51-17-2 55-21-0 62-53-3, reactions 93-98-1 100-52-7, reactions  
 103-70-8 716-79-0 2963-77-1 7154-31-6 7621-86-5 13755-08-3  
 17223-18-6 17625-83-1 19250-69-2 71002-88-5 98806-50-9

98806-52-1 98806-53-2 98806-54-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymer degrdn. of, as model for arom. polyamides, mass-spectroscopic study of)

IT 51-17-2D, derivs., polymers 24938-60-1 24938-64-5 24991-08-0  
25035-33-0 25035-37-4

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(thermal degrdn. of, kinetics and mechanism of)

L12 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

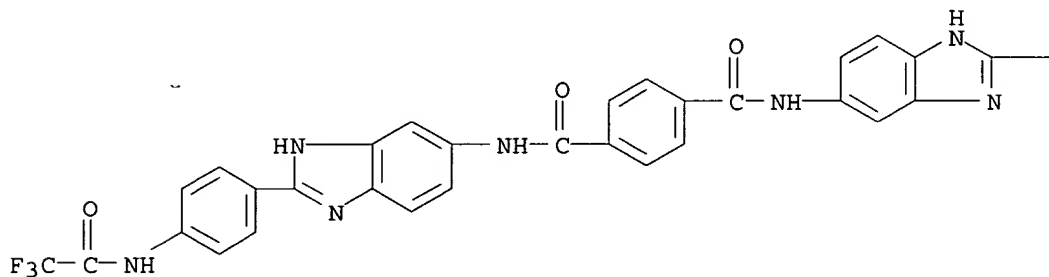
IT 87353-68-2P 87366-51-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

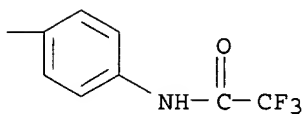
RN 87353-68-2 CAPLUS

CN 1,4-Benzenedicarboxamide, N,N'-bis[2-[4-[(trifluoroacetyl)amino]phenyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A



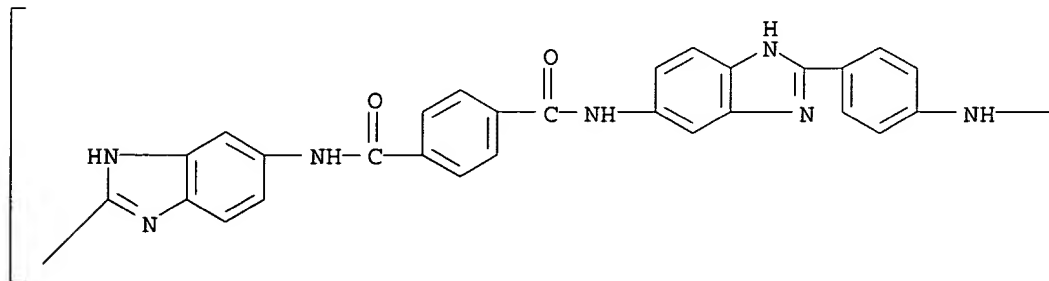
PAGE 1-B

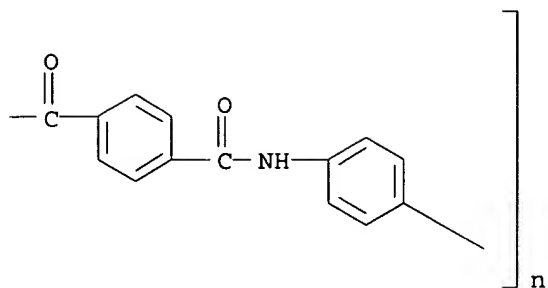


RN 87366-51-6 CAPLUS

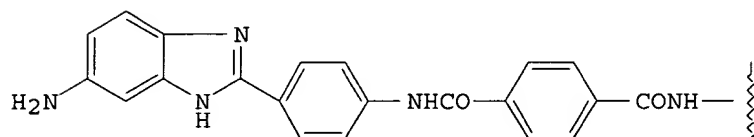
CN Poly(1H-benzimidazole-2,5-diyliminocarbonyl-1,4-phenylenecarbonylimino-1H-benzimidazole-5,2-diyl-1,4-phenyleneiminocarbonyl-1,4-phenylenecarbonylimino-1,4-phenylene) (9CI) (CA INDEX NAME)

PAGE 1-A

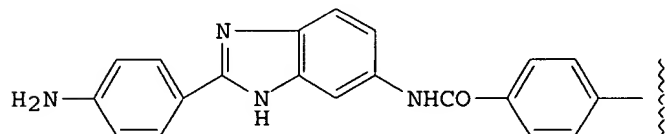




AN 1983:540428 CAPLUS  
 DN 99:140428  
 TI Synthesis of symmetric terephthaloyl derivatives of 2-(p-aminophenyl)-5-aminobenzimidazoles as monomers for polyamides  
 AU Gel'mont, M. M.; Akulin, Yu. I.; Strelets, B. Kh.; Efros, L. S.  
 CS Lening. Eksp. Zavod, Vses. Nauchno-Issled. Proektn. Inst. Iskusstven. Volokna, Leningrad, 195030, USSR  
 SO Khimiya Geterotsiklicheskikh Soedinenii (1983), (7), 975-81  
 CODEN: KGSSAQ; ISSN: 0453-8234  
 DT Journal  
 LA Russian  
 CC 35-2 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 28  
 OS CASREACT 99:140428  
 GI



I



II

AB Different synthetic routes to the diamines I [87345-64-0] and (II) [87345-65-1] were studied.. The most convenient consisted of acylation of 2-(p-aminophenyl)-5-nitrobenzimidazole [71002-88-5] or 5-amino-2-(p-nitrophenyl)benzimidazole [40655-18-3] with terephthaloyl chloride (III) [100-20-9] and redn. of the NO<sub>2</sub> groups. The synthesis of

the nitro compds. and alternate routes to I and II are described. Polymn. of I or II with III gave linear polyamides with d.p. .apprx.50.

ST benzimidazole deriv polyamide; terephthaloyl chloride polyamide;  
nitrophenylbenzimidazole redn; aminophenylbenzimidazole deriv polyamide

IT Polyamides, uses and miscellaneous  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(benzimidazole group-contg., prepn. of)

IT 2963-77-1 27030-98-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(nitration of)

IT 7621-86-5P 28689-19-2P 69571-00-2P 87345-54-8P 87345-58-2P  
87345-61-7P 87345-62-8P 87345-63-9P 87345-64-0P 87345-65-1P  
87353-68-2P 87366-15-2P 87366-16-3P 87366-51-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT 99-56-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with aminobenzoic acid)

IT 122-04-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with benzenetriamine)

IT 615-71-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with bis(carboxyphenyl)terephthalamide)

IT 97-02-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with bis[(chloroformylphenyl)terephthalamide])

IT 87345-57-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dinitroaniline)

IT 66248-00-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with nitrobenzoyl chloride)

IT 150-13-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with nitrophenylenediamine)

IT 40655-18-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with terephthaloyl chloride)

IT 71002-88-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with terephthaloyl chloride and trifluoroacetic anhydride)

IT 70142-79-9 87345-56-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with triaminobenzene)

IT 100-20-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of, with (aminophenyl)nitrobenzimidazole and derivs.)

IT 87345-59-3  
RL: USES (Uses)  
(redn. and terephthaloylation of)

IT 1772-39-0 87345-55-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(redn. of)

IT 87345-60-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(thermal cyclization of)